

erythemas, and suggests very strongly a similar etiology.

The association of arthritis with these erythemas is marked. Four per cent of these cases were of polyarthritis, 1 per cent having concomitant skin eruptions. Whether or not a case is classic inflammatory rheumatism, after a throat infection, depends entirely upon the character of the invading parasite. No doubt there are different types of bacteria concerned. The cases also differ clinically, some being typical acute polyarthritis, others being monarticular, and resulting in permanent joint injury.

In my histories of acute multiple arthritis, so-called inflammatory rheumatism, I have not been able to find a single case in which there was not a prior condition of sore throat, except in gonorrhea, erysipelas, pneumonia, or some pyemic state.

Endocarditis was a sequela of throat infection in $1\frac{1}{2}$ per cent of my cases, and 2 of these, or $\frac{1}{2}$ per cent, were not accompanied by any articular lesion, whatever.

During the active stage of these naso-pharyngeal inflammations, albumen occurred in the urine in 10 per cent of the number. Some of this was nucleo-albumen, but in 4 per cent there was a definite nephritis, and 2 of these died of uremia.

Frankel has described a recurrent albuminuria coincident with slight fever, and enlarged post-cervical nodes. One case of this sort occurs in my list. Here, during a period of two years, the patient experienced these phenomena six times. The first sickness was initiated by a chill, fever, sore throat, mild lymphadenitis of the neck, and nephritis. She slowly recovered from the nephritis, but 3 months later, again had a slight fever, a post-nasal inflammation, giving a streptococcic culture, enlarged cervical nodes, and a transient albuminuria for three weeks. This recurred four times during my observation, yet left her in each interim with no signs of chronic nephritis.

In another case of mild nephritis following tonsillitis and erythema nodosum, the character of the albuminuria became *orthostatic*. If the boy lay down, he had no albuminuria or casts; if he stood upon his feet for a day, the albumen and casts returned. This was exaggerated if his work kept him on his feet at night, even though he rested during the day.

A routine examination of the urine of sick infants and children gives surprising results. We are inclined to neglect this practice. It is no uncommon thing to find continued fever in young children, due entirely to a cystitis, or pyelitis, following an inflammatory lesion in the respiratory tract or throat. Even with my inaccurate observations I have recognized that $3\frac{1}{2}$ per cent of these cases had cystitis. Several of this number palpably suffered from a concomitant pyelitis, and were markedly septic for a week or more. None, however, developed a nephritic abscess.

In female children, cystitis seems more frequent than in males, and where an acute gastro-enteritis supervenes as a sequela of the throat lesion, cystitis is to be expected.

No doubt the constant swallowing of purulent

mucus is the direct mode of infecting the gastrointestinal tract. Three per cent of these recorded cases developed acute enteritis. In fact I have tabulated more cases of diarrhea following immediately upon throat infections than from contaminated food.

This is not purely a matter of fancy. Not only do these cases present all the typical throat appearances and lymphatic enlargement, but adult members of the family will be sick at the same time—say, with follicular tonsillitis, or quincy—while the child, obviously, contracting a sore throat, will begin vomiting and terminate with an acute diarrhea, in some cases of pronounced severity.

If you admit the accuracy of these observations, it must be apparent that throat infections are a common cause of disease, and capable of initiating lesions into other organs, either by direct bacterial invasion, or toxic absorption. These complications in lymphatics, joints, skin, heart, kidneys, etc., occurred either during the height of the fever or immediately following its decline, generally within a week of its inception, and always suggested an intimate relation to the infection. Neuritis, myalgia, cholecystitis, otitis media, and other diseases, might well be added to the list of complications, but their relation is not so manifest.

As in the majority of acute infectious diseases, we are practically helpless to cure the condition. We can use protective sera in some cases, and we can employ antiseptics to the infected tissues. I have not found the anti-streptococcic sera of any marked value.

We know the futility of antiseptic applications to erysipelas of the skin, yet we persist in swabbing an inflamed throat, where the submucous tissue is the site of the bacterial invasion, and impossible of penetration by antiseptics. Probably some antiseptics are of value in washing the *surface* of the diseased tissue. I use succinic peroxide in solution, because of its reported strong bactericidal action, and nontoxicity.

With infants, I give it by mouth and a nasal spray in a solution of 1-1500. It seems the best of any antiseptic employed in my treatment. Calomel, and diluent drinks we use through habit.

Fortunately for the patient, antitoxic bodies and protective enzymes are elaborated, quite independent of our fussy medication, and the restoration to the normal occurs.

Where repeated or continuous infection of the lymphoid tissue exists, or any one of its resultants, the post-nasal and tonsillar structures should be removed, as completely and as accurately as possible.

PROPRIETARY PREPARATIONS APPROVED BY THE COUNCIL ON PHARMACY AND CHEMISTRY.

(Continued from May Journal.)

CHINAPHENIN.

Chinaphenin, CO (NH. C₆H₄OC₆H₅) (C₂₀H₂₃N₂O₂) = C₂₀H₂₃N₂O₄, the quinine carbonic acid ester of phenetidin.

Actions and Uses.—Chinaphenin combines the antiperiodic properties of quinine, with the analgesic power of phenacetin, with the advantage of taste-

lessness and asserted freedom from symptoms of cinchonism produced by the administration of the two remedies in simple mixture. It is recommended in febrile diseases, especially la grippe; in spasmodic conditions, such as whooping-cough; in certain forms of malaria and in neuralgia. Dosage.—Adult: 0.3 to 0.6 Gm. (5 to 10 grains) ordinarily, 1.5 to 2 Gm. (22 to 30 grains), given in two doses as an antipyretic in neuralgia and malaria; in whooping-cough, 0.13 to 0.3 Gm. (2 to 5 grains), according to age. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

CHLORBUTANOL.

Chlorbutanol, 1,1,1-trichlor-2-methyl-propan-2-ol, $\text{CCl}_3\text{C}(\text{OH})(\text{CH}_3)\cdot\text{CH}_2=\text{C}_6\text{H}_4\text{OCl}_3$, produced by the reaction of acetone on chloroform.

Actions and Uses.—It is said to be absorbed unchanged, but to be decomposed in the body. It is a local anesthetic with an action weaker than that of cocaine, but sufficient to prevent vomiting from gastric irritation. Its antiseptic action is said to be fifteen times as strong as boric acid. It acts on the central nervous system similarly to chloral, and although the claim has been made that hypnotic doses are without effect on the circulation and respiration, independent observers have described a fall of blood pressure and interference with respiration in animals, and consider it fully as dangerous as chloral. In man 100 grains caused severe symptoms, but recovery occurred. It is claimed that no habit is induced, but this may be referable to its restricted employment. It is recommended as a mild local anesthetic, in dentistry, etc., as a preservative for hypodermic solutions, for insomnia, vomiting and for spasmodic conditions. It is also said to be useful as introductory to general anesthesia, lessening excitement and nausea. Dosage.—The dose is from 0.3 to 1.5 Gm. (5 to 20 grains) dry or in capsules. Hypodermically as a local anesthetic a saturated aqueous solution may be used.

CHLORETONE.

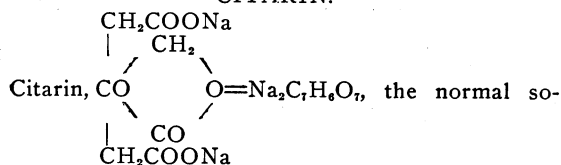
A name applied to chlorbutanol, which see. Manufactured by Parke, Davis & Co., Detroit, Mich.

CHLORETONE INHALANT.

A solution of chloretone, camphor, menthol and oil of cinnamon in liquid petrolatum.

Actions and Uses.—An anodyne, antiseptic, and emollient solution for use by inhalation as a very fine spray or nebula. Manufactured by Parke, Davis & Co., Detroit, Mich.

CITARIN.



dium salt of anhydromethylene-citric acid.

Action and Uses.—This is one of the compounds which it is claimed increase the elimination of uric acid by forming very soluble compounds with that substance. It has been recommended for gout and chronic rheumatism. Dosage.—1 to 2 Gm. (15 to 30 grains), largely diluted with water. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

CREOSTAL.

A mixture of carbonic acid esters, analogous to guaiacol carbonate, prepared from creosote.

Action and Uses.—Cresotal has the same action as creosote, but is claimed to be non-toxic and devoid of irritant properties. It is recommended as a substitute for creosote for internal exhibition in

tuberculosis, pneumonia, and as an intestinal antiseptic. Dosage.—From 0.3 to 2.0 Gm. (5 to 30 grains) for children, to 1 to 4 Gm. (15 to 60 grains) for adults, in milk, coffee, wine, col-liver oil or emulsion. Externally it may be applied undiluted. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York). Fabrik von Heyden, Radebeul, near Dresden.

DENTALONE.

A 30 per cent. solution of chloretone in a mixture of oils of gaultheria, cloves and cassia.

Actions and Uses.—Dentalone possesses pronounced anesthetic properties and is intended for use by dentists in the treatment of exposed nerves in decayed teeth. Prepared by Parke, Davis & Co., Detroit, Mich.

DERMATOL.

A name applied to Bismuthi Subgallas, U. S. P. Manufactured by Meister, Lucius & Bruening, Hoechst a. M. (Victor Koechl & Co., New York).

DIABETIN.

A pure, crystallized fructose (levulose), $\text{CH}_2\text{OH}\cdot\text{CHOH}\cdot\text{CHOH}\cdot\text{CO}\cdot\text{CH}_2\text{OH}=\text{C}_6\text{H}_{12}\text{O}_6$, absolutely free from dextrose (ordinary glucose).

Actions and Uses.—Levulose is metabolized in the body by other agencies than those that act on dextrose and most of the other sugars and appears to be more completely utilized by the diabetic organism than the other sugars. It is recommended for the nutrition and for sweetening the food and drink of diabetes, in pulmonary tuberculosis, infantile malnutrition and marasmus. Dosage.—It is given in diabetes in daily quantities of 30 to 60 Gm. (1 to 2 ounces); in grave forms of the disease the amount is reduced from 12 to 24 Gm. (3 to 6 drams) daily. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

DIONIN.

Dionin, $\text{C}_{17}\text{H}_{17}\text{NO}(\text{OH})\text{OC}_2\text{H}_5\cdot\text{HCl}+\text{H}_2\text{O}=(\text{C}_{17}\text{H}_{15}\text{O}_2\text{CIN}+\text{H}_2\text{O})$, the hydrochloride of the ethyl ester of morphine.

Actions and Uses.—It is claimed that this compound acts like morphine without producing constipation, nausea or lassitude. It is the conclusion of some good observers that it possesses no advantage over codeine. Applied to the eye, it causes a local vasodilation, leading to acute conjunctival edema. Dionin is recommended to relieve pain, especially in respiratory affections, as an antispasmodic in whooping-cough, for insomnia and externally in the treatment of corneal affections, conjunctivitis, iritis, etc. Dosage.—0.015 to 0.06 Gm. ($\frac{1}{4}$ to 1 grain). Externally it is applied in 10 to 20 per cent. solutions. Manufactured by E. Merck, Darmstadt (Merck & Co., New York).

DIURETIN.

A name applied to theobromine-sodium salicylate, which see. Manufactured by Knoll & Co., Ludwigshafen, Germany (E. Merck & Co., New York).

DUOTAL.

A name applied to Guaiacolis Carbonas, U. S. P. Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Continental Color & Chemical Co., New York).

DUOTONOL.

A name applied to a mixture of equal parts of calcium tonol and sodium tonol. (See Tonols.)

Actions and Uses and Dosage.—See Glycerophosphates. Manufactured by Chemische Fabrik auf Actien, vorm. E. Schering, Berlin (Schering & Glatz, New York).

(To be continued.)